

**REMARKS/ARGUMENT**

**I. General Remarks**

Please consider the application in view of the following remarks. Applicant thanks the Examiner for his careful consideration of this application and the references that Applicants have submitted.

**II. Disposition of Claims**

Claims 1-22, 24-34, 36-59, 88 and 89 are pending in this application. Claims 23 and 35 have been cancelled.

Claim 33 is withdrawn from consideration.

Claims 1-22, 24-32, 34, 36-59, 88 and 89 are rejected.

Claims 1-22, 24-34, 36-59, 88 and 89 are subject to restriction and/or election requirement.

Applicants reserve the right to subsequently take up prosecution on the claims as originally filed in this or appropriate continuation, continuation-in-part and/or divisional applications.

**III. Remarks Regarding Withdrawn Rejections**

Applicants acknowledge the Examiner's removal of the 35 U.S.C. § 102(e) rejection of claims 23 and 35.

Applicants acknowledge the Examiner's removal of *Ravi* as prior art under 35 U.S.C. § 103.

Applicants acknowledge the Examiner's removal of the rejection of claims 8-10, 39 and 42 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,256,936 (*Johnson*) in view of *Ravi*.

**IV. Remarks Regarding the 37 C.F.R. 1.132 Declarations of Krishna Ravi and B. Raghava Reddy**

The Examiner has objected to the Declarations submitted by Applicants on January 31, 2007 because of the language in the declarations. Applicants have corrected the declarations and have resubmitted them in order to overcome the rejection of the claims under 35 U.S.C. § 102(e). Applicants have also resubmitted their arguments below in section VIII.

**V. Remarks Regarding Applicants' Information Disclosure Statements**

The Examiner has indicated that the information disclosure statements submitted by Applicants on November 17, 2006, January 31, 2007, and February 22, 2007 are in compliance with the provisions of 37 C.F.R. 1.97, and that he has considered the references cited therein. Applicants thank the Examiner for his careful and timely consideration of these references.

**VI. Rejection of Claims on Grounds of Nonstatutory Obviousness-Type Double Patenting**

Claims 1-3, 5, 12-22, 24-29, 40, 41, 43-48, 50-59, 88 and 89 stand provisionally rejected on the grounds of nonstatutory obviousness-type double patenting. With respect to these rejections, the Office Action states:

Although not directed to the elected hydrophobic silane coated particles, in the interest of compact prosecution, claims 1-3, 5, 12-22, 24-29, 40, 41, 43-48, 50-59, 88 and 89 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 52, 53, 55-64, 66-69, 72-75, 77-81, 85, 88 and 90 of copending Application 10/350, 533.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application claims a method of using—specifically cementing—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation through a well bore—including pumping—wherein the fluid comprises a base fluid and a portion of elastic particles, wherein the base fluid is present at from about 30% to about 120% by weight of the cement and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts, the particles are present in the range of from about 1% to about 200% by weight of the cement, can be pre-expanded up to about 8 times their original diameter, which calculates to up to 268 times their original volume by  $4/3\pi r^3$  before being added to composition with an internal fluid—including the elected internal fluid, air—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile—including EXPANCEL particles as exemplified by applicant.

(Office Action at page 5).

Submitted herewith is an appropriate terminal disclaimer in compliance with 37 C.F.R. § 1.321 disclaiming the appropriate term. Accordingly, Applicants respectfully submit

that the provisional double patenting rejections have been overcome, and respectfully request the withdrawal of these rejections.

**VII. Rejection of Claims Under 35 U.S.C. § 102(b) - Jorda et al.**

Claims 1-3, 5-7, 11, 13, 14, 17, 18, 24, 26-30, 41, 43, 44, 46-48, 50-52, 54-56, 58, 88, and 89 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 3,145,773 to Jorda *et al.* ("Jorda"). With respect to these rejections, the Office Action states:

Jorda teaches a method of completing formations traversed by an oil, water or gas producing well (Column 1 Lines 10-18) comprising injecting a slurry of oil or water and expandable elastic particles covered with an impermeable film or layer (Column 3 Lines 1-58).

Since Jorda teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Jorda composition would inherently be the same as claimed.

(Office Action at page 6.) Applicants respectfully disagree with these rejections.

To form a basis for a § 102(b) rejection, a prior art reference must disclose each and every element as set forth in the claim. *See MANUEL OF PATENT EXAMINING PROCEDURE (MPEP) (MPEP) § 2131 (2005).* "The identical invention must be shown in as complete detail as is contained in the claim." *Id.* With regard to independent claims 1, 44, and 47, *Jorda* fails to disclose "elastic particles" which do not require additional polymerization. Rather, *Jorda* discloses the "further polymerization of [a] prepolymer" to effect "a method of sealing one or more selected formations." (*See* col. 3, ll. 53-58, col. 5, ll. 64-69, col. 6, ll. 25-30 and ll. 64-66) Further, *Jorda*, fails to disclose "elastic particles" having an "'isothermal compressibility factor.'" Instead, *Jorda*, discloses a "quantity of particles....accumulated and compressed in a mass within the annular space." (*See* col. 3, ll. 66-69) One of ordinary skill in the art would recognize that the particles disclosed in *Jorda* do not exhibit "isothermal compressibility" which varies as a function of volume in relation to pressure, "while temperature is held constant." (*See* col. 3, ll. 70-74; Specification at [0017]) As such, *Jorda* does not disclose each and every element as set forth in independent claims 1, 44, and 47. Thus, *Jorda* cannot be used to anticipate Applicants' claims.

The remaining claims rejected as anticipated by *Jorda* under 35 U.S.C. § 102(b) depend either directly or indirectly from independent claims 1, 44, and 47. All these dependent

claims include all the limitations of their corresponding independent claims 1, 44, and 47. Accordingly, Applicants respectfully request withdrawal of this rejection with respect to claims 1-3, 5-7, 11, 13, 14, 17, 18, 24, 26-30, 41, 43, 44, 46-48, 50-52, 54-56, 58, 88, and 89.

### VIII. Rejection of Claims Under 35 U.S.C. § 102(e)

#### A. Rejection of Claims Under 35 U.S.C. § 102(e) - Reddy et al.

Claims 1-3, 5-7, 11-22, 24-29, 40, 41, 43-48, 51-59, 88 and 89 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication 2004/0144537 to Reddy *et al.* ("Reddy"). With respect to these rejections, the Office Action states:

Reddy teaches a method of using—specifically cementing (¶0006)—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation through a well bore (¶0001)—including pumping (¶0017)—wherein the fluid comprises a base fluid and a portion of elastic particles (Abstract, ¶0006), wherein the base fluid is present at from about 30% to about 120% by weight of the cement (¶0017) and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts (¶0008) and the particles are present in the range of from about 1% to about 200% by weight of the cement (¶0007), can be pre-expanded up to about 8 times their original diameter, which calculates to up to 268 times their original volume by  $4/3\pi r^3$  before being added to composition with an internal fluid—including the elected internal fluid, air (¶¶0007 and 0008)—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile (¶0006)—including EXPANCEL particles as exemplified by applicant (¶0008).

Since Reddy teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Reddy composition would inherently be the same as claimed.

(Office Action at pages 6-7).

In order to form a basis for a § 102(e) rejection, an earlier-filed patent must be "by another." *See* 35 U.S.C. § 102(e). Submitted herewith is the declaration of B. Raghava Reddy under 37 C.F.R. § 1.132 showing that the relevant disclosure in *Reddy* is Applicant's own work, and thus the invention disclosed therein is not "by another." *See* MPEP § 716.05 (2005) (declaration from the applicant regarding the subject matter disclosed in a patent is sufficient to

establish inventorship). Accordingly, Applicants respectfully submit that the 35 U.S.C. § 102(e) rejection of claims 1-3, 5-7, 11-22, 24-29, 40, 41, 43-48, 51-59, 88 and 89 based on *Reddy* has been overcome.

**B. Rejection of Claims Under 35 U.S.C. § 102(e) - Ravi et al.**

Claims 1-7, 11-22, 32, 34, 36-38, 40, 41 and 43-59 and new claims 88 and 89 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication 2004/0171499 to Ravi *et al.* ("Ravi"). With respect to these rejections, the Office Action states:

Ravi teaches a method of using—including in cementing and drilling (¶0009)—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation (¶0002) through a well bore (Abstract)—including pumping (¶0003)—wherein the fluid comprises a base fluid and a portion of elastic particles (¶0011), wherein the base fluid is present at from about 25% to about 150% by weight of the cement and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts—including mineral oils, synthetic oils and esters as claimed (¶0017) and the particles are present in the range of from about 1% to about 200% by weight of the cement, have a specific gravity of from about 0.3 to about 0.99, a compressibility of about  $1.5 \times 10^{-3}$  psi<sup>-1</sup> to about  $1.5 \times 10^{-9}$  psi<sup>-1</sup>, are substantially impermeable to the fluid typically encountered during cementing operations (¶0018), can be pre-expanded up to about 40 times their original volume before being added to composition with an internal fluid—including the elected internal fluid, air (¶0019)—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile (¶0020) and can withstand pressures in excess of 21,000 psi without crushing (¶0023)—including EXPANCEL particles as exemplified by applicant (¶¶0019-0021)—coated with hydrophobic silane material (Claims 1 and 16-18).

Since Ravi teaches the same composition as claimed, the variability of the density and the temperature resistance of the particles of the Ravi composition would inherently be the same as claimed.

(Office Action at pages 8-9).

The Examiner has indicated that this rejection with regard to claims 1-7, 11-22, 32, 34, 36-38, 40, 41 and 43-59 and new claims 88 and 89 could be overcome with a declaration pursuant to 37 C.F.R. § 1.132 showing that the relevant disclosure is not “by another.”

Submitted herewith is Applicants’ declarations under 37 C.F.R. § 1.132 showing that the relevant disclosure is Applicants’ own work, and thus the invention disclosed is not “by another.” See MPEP § 716.10 (2005) Accordingly, Applicants respectfully submit that the 35 U.S.C. § 102(e) rejection of claims 1-7, 11-22, 32, 34, 36-38, 40, 41 and 43-59 and new claims 88 and 89 based on *Ravi* has been overcome, and respectfully request the withdrawal of these rejections.

#### **IX. Rejection of Claims Under 35 U.S.C. § 103(a)**

##### **A. Rejection of Claims Under 35 U.S.C. § 103(a) - Johnson et al. in View of Jorda et al.**

Claims 8-10, 34, 36-39, and 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 3,256,936 to Johnson et al. (“Johnson”) in view of Jorda as applied to claims 1-3, 5-7, 11, 13, 14, 17, 18, 24, 26-30, 41, 43, 44, 46-48, 50-52, 54-56, 58, 88, and 89. With respect to these rejections, the Office Action states:

Johnson teaches a method of drilling and cementing a wellbore comprising drilling a wellbore wherein the wellhead is positioned on the ocean floor (Column 1 Lines 8-13 and 58-61) and the assembly comprises pipe strings extending downward that are identical to pipe strings extending upward (Figure 2 and Column 2 Lines 6-9) and a riser to inject mud (Figure 3 Reference No. 53 and Column 4 Lines 15-20).

Johnson does not disclose expressly injecting a fluid of the composition claimed.

Jorda teaches a method of completing formations traversed by an oil, water or gas producing well comprising injecting a slurry of oil or water and expandable elastic particles covered with an impermeable film or layer as detailed above.

Since Jorda teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Jorda composition would inherently be the same as claimed.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the fluid composition of Jorda in the method of Johnson. The motivation to do so would

have been to prevent contamination of the oil by water from an adjacent formation (*Jorda* Column 1 Lines 19-28).

(Office Action at pages 9-10). Applicants respectfully disagree.

In order for a combination of references to form the basis for a rejection under § 103(a), the combination of references must teach or suggest all of the elements of the claim. MPEP § 2143. As discussed above, *Jorda* does not teach all of the elements of claims 1 and 44, from which claims 8-10, 34, 36-39, and 42 depend, because *Jorda* does not teach a method utilizing “elastic particles” as recited in the claims. Applicants respectfully submit that *Johnson* also fails to disclose a method utilizing “elastic particles” as recited in the claims. Accordingly, Applicants respectfully submit that a combination of *Johnson* and *Jorda* does not teach all of the limitations of claim 8-10, 34, 36-39, and 42, which, as dependent claims, necessarily include all of the limitations of independent claim 1 or 44. See 35 U.S.C. § 112 ¶ 4 (2004). Therefore these dependent claims are allowable over the proposed combination of references.

**B. Rejection of Claims Under 35 U.S.C. § 103(a) - Johnson et al. in View of Reddy et al.**

Claims 1-3, 5-7, 11-22, 24-30, 40, 41, 43-48, 51-59, 88 and 89 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Johnson* in view of *Reddy* as applied to claims 1-3, 5-7, 11-22, 24-30, 40, 41, 43-48, 51-59, 88, and 89. With regard to these rejections, the Office Action states:

*Johnson* teaches a method of drilling and cementing a wellbore comprising drilling a wellbore wherein the wellhead is positioned on the ocean floor and the assembly comprises pipe strings extending downward that are identical to pipe strings extending upward and a riser to inject mud as detailed above.

*Johnson* does not disclose expressly injecting a fluid of the composition claimed.

*Reddy* teaches a method of using—specifically cementing—a fluid in a subterranean formation comprising introducing said fluid into the subterranean formation through a well bore—including pumping—wherein the fluid comprises a base fluid and a portion of elastic particles, wherein the base fluid is present at from about 30% to about 120% by weight of the cement and may be an aqueous or organic liquid and if organic is capable of emulsifying a water solution of salts and the particles are present in the range of from about 1% to about 200% by weight of the cement, can be pre-

expanded up to about 8 times their original diameter, which calculates to up to 268 times their original volume by  $4/3\pi r^3$  before being added to composition with an internal fluid—including the elected internal fluid, air—are comprised of a copolymer of styrene and divinylbenzene or styrene and acrylonitrile or a terpolymer of styrene and vinylidene chloride and acrylonitrile—including EXPANCEL particles as exemplified by applicant as detailed above.

Since Reddy teaches the same composition as claimed, the density, compressibility and pressure and temperature resistance of the particles and the variability of the density of the fluid of the Reddy composition would inherently be the same as claimed.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the fluid composition of Reddy in the method of Johnson. The motivation to do so would have been to provide compositions that can withstand the cyclical stresses that occur during the life of the well (Reddy ¶006).

(Office Action at pages 10-11).

Applicants respectfully disagree with this rejection because *Reddy* is not prior art to this application. In order for *Reddy* to qualify as prior art to the instant application, it must be “by another.” See 35 U.S.C. § 102(e). Submitted herewith is the declaration of B. Raghava Reddy under 37 C.F.R. § 1.132 showing that the relevant disclosure in *Reddy* is Applicant’s own work, and thus the invention disclosed therein is not “by another.” See MPEP § 716.05 (2005) (declaration from the applicant regarding the subject matter disclosed in a patent is sufficient to establish inventorship). Thus, *Reddy* does not qualify as prior art to the instant application, and cannot be used in combination with *Johnson* as the basis for a 35 U.S.C. § 103(a) rejection. Accordingly, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejection of claims 1-3, 5-7, 11-22, 24-30, 40, 41, 43-48, 51-59, 88 and 89 based on *Johnson* in view of *Reddy* should be withdrawn.

#### X. No Waiver

All of Applicants’ arguments are without prejudice or disclaimer. Additionally, Applicants reserve the right to discuss additional distinctions from cited references in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicants do not acquiesce to the Examiner’s additional statements.

**SUMMARY AND PETITION FOR ONE-MONTH EXTENSION OF TIME TO FILE  
THIS RESPONSE**

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants hereby petition under the provisions of 37 C.F.R § 1.136(a) to extend the time for reply to the Office Action mailed on March 22, 2007 for 1 month from June 22, 2007 to July 22, 2007. The Commissioner is hereby authorized to debit the Deposit Account of Baker Botts L.L.P., Deposit Account No. 02-0383, Order Number 063718.0161, in the amount of \$120.00 for the fee for the one-month Extension of Time to file this Response. Applicants also authorize the Commissioner to debit the Deposit Account of Baker Botts L.L.P., Deposit Account No. 02-0383, Order Number 063718.0161, in the amount of \$130.00 for the filing of a Terminal Disclaimer filed herewith.

Applicant believes that there are no fees due in association with the filing of this Response. However, should the Commissioner deem that any fees are due, including any fees for any extensions of time, Applicants respectfully request that the Commissioner accept this as a Petition therefore, and directs that any fees be debited from Baker Botts L.L.P., Deposit Account No. 02-0383, Order Number 063718.0161.

Respectfully submitted,

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Date: July 23, 2007